

Application No. 10/627,382
Reply to Office Action of February 10, 2005

Amendments to the Drawings

The drawings have been amended to designate Fig. 10 as prior art. A replacement sheet is being filed herewith.

REMARKS

Claims 1-19 are pending in this application, as amended. Claims 1 and 16 have been amended to make it clear that the diaphragm is deformable by fluid pressure and the direct-moved shaft moves in response to the deformation of the diaphragm. Support for this amendment can be found in the specification, at page 12, lines 14-18. The drawings have been amended to designate Fig. 10 as prior art. Accordingly, no new matter has been added as a result of the above-described amendments.

Drawing Objection

The Examiner stated that Fig. 10 should be designated as prior art. Applicants have amended the drawings to designate Fig. 10 as prior art. Based upon this amendment, Applicants respectfully request that the Examiner withdraw any objection to the drawing.

Claim Rejections – 35 U.S.C. § 102(b)

The Examiner rejected claims 1-4 and 16 under 35 U.S.C. § 102(b) as being anticipated by Kolenc *et al.* The Examiner argues that Kolenc discloses a control valve including a first body 126, 118 that encloses a direct move shaft 34, a second body 50, 10 enclosing a diaphragm 14, a compressive elastic member in the form of a wave washer 130 and a holder 18. In regard to claims 2 and 16, the Examiner argues that Kolenc discloses a first body 10, 28 that encloses a direct move shaft 16, a second body 50 enclosing a diaphragm 14, an outer cylinder in the form of a wall surrounding the bore 28 that encloses the second member 50, a holder 18 and a compressive elastic member in the form of a wave washer 130 that allows the second body to be disposed at any location. Applicants respectfully traverse this rejection.

Claim 1, as amended, recites, *inter alia*, a control valve in which a direct-moved shaft having one of two ends abutted against a diaphragm which is deformable by fluid pressure, the direct-moved shaft being moved in response to deformation of the diaphragm so that a valve element provided on the other end of the direct-moved shaft is adhered to and separated from an opening edge of a passage, thereby controlling a flow rate of a fluid passing through the passage. The control valve includes a first body enclosing the direct-moved shaft, a second body

enclosing the diaphragm, a compressive elastic member deformed by compression when the second body is pressed against the first body, and a holder for holding the second body on the first body while the compressive elastic member is deformed by compression.

Kolenc discloses a valve comprising a main body 10 having a cylindrical internal valve chamber 12 which is sealed by a diaphragm assembly 14. Kolenc's valve requires manual operation to change the opening of the valve. See Col. 2, lines 55-59. The diaphragm 14 of Kolenc completely separates fluid passages 20, 22, 12 and 16 from the compartment enclosing the stem 34 and threads 128. The fluid that enters fluid passages 20 and 22 does not deflect the diaphragm 14 as the diaphragm 14 is completely sealed and manually actuated.

Anticipation under 35 U.S.C. § 102(b) requires that a single prior art reference disclose each and every limitation of the claimed device. It is respectfully submitted that Kolenc does not disclose each and every limitation of claim 1. In particular, claim 1 as amended recites that the direct-moved shaft is abutted against a diaphragm which is deformable by fluid pressure, the direct-moved shaft being moved in response to the deformation of the diaphragm. It is clear from the disclosure of Kolenc that the diaphragm in Kolenc is not deformed or deformable by fluid pressure. The diaphragm in Kolenc is completely sealed and deformed by manual actuation. Accordingly, it is respectfully submitted that claim 1 is novel over Kolenc, and the Examiner is respectfully requested to reconsider and withdraw the § 102(b) rejection of claim 1.

Claim 16, like claim 1, is an independent claim and recites, *inter alia*, that a control valve in which a direct-moved shaft having one of two ends abutted against a diaphragm which is deformable by fluid pressure, the direct-moved shaft being moved in response to the deformation of the diaphragm. Accordingly, claim 16 is novel based on the same argument presented above with regard to claim 1. Claims 2-4 depend on claim 1, directly or indirectly. Claim 1 is novel over Kolenc for the reasons stated above and accordingly, it is respectfully submitted that claims 2-4 are also novel over Kolenc, at least by their dependency on claim 1.

Based on the amendment of claims 1 and 16, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 1-4 and 16 under 35 U.S.C. § 102(b).

Allowable Subject Matter

The Examiner objected to claims 5-15 and 17-19 as being dependent upon a rejected base claim, but the claims would be allowed if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicant appreciates the Examiner's willingness to allow claims 5-15 and 17-19. However, in view of the amendments to claims 1 and 16, it is not necessary to place any of claims 5-15 and 17-19 in independent form at this time. Claims 5-15 and 17-19 will be patentable once the Examiner withdraws the rejection of claims 1-4 and 16.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that the present application, including claims 1-19, as amended, is in condition for allowance and such action is respectfully requested.

Respectfully submitted,

SATORU OKADA *et al.*

May 31, 2005
(Date)

By:



MARTIN G. BELISARIO

Registration No. 32,886

AKIN GUMP STRAUSS HAUER & FELD LLP

One Commerce Square

2005 Market Street, Suite 2200

Philadelphia, PA 19103-7013

Telephone: 215-965-1200

Direct Dial: 215-965-1303

Facsimile: 215-965-1210

E-Mail: mbelisario@akingump.com

MGB/FL-D/hg